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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

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|------------------------------|--------------------------------------|---------------------------------------|
| Office Action Summary | Application No. 10/046,131 | Applicant(s) GALANES ET AL. |
| | Examiner MARTIN LERNER | Art Unit 2626 |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If no period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) Responsive to communication(s) filed on 10 September 2009.
 2a) This action is FINAL. 2b) This action is non-final.
 3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) Claim(s) 1 to 56 is/are pending in the application.
 4a) Of the above claim(s) 53 to 56 is/are withdrawn from consideration.
 5) Claim(s) _____ is/are allowed.
 6) Claim(s) 1 to 52 is/are rejected.
 7) Claim(s) _____ is/are objected to.
 8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) The specification is objected to by the Examiner.
 10) The drawing(s) filed on 02 June 2006 is/are: a) accepted or b) objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
 11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) All b) Some * c) None of:
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) Notice of References Cited (PTO-892)
 2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
 3) Information Disclosure Statement(s) (PTO/SB/08)
 Paper No./Mail Date 10/23/2009.
- 4) Interview Summary (PTO-413)
 Paper No./Mail Date. _____.
 5) Notice of Informal Patent Application
 6) Other: _____

DETAILED ACTION

Election/Restrictions

Applicants' election without traverse of Group II, Claims 23 to 51, in the reply filed on 13 June 2008 is acknowledged.

Claims 53 to 56 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 13 June 2008.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1 to 22 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

Independent claims 1 and 12 contain the terms "modality dependent attributes" and "modality dependent controls", which are new matter because Applicants' Specification as originally-filed does not provide an adequate written description in such a way as to reasonably convey that the inventors had possession of the concept of

modality dependence. The Specification does not set forth the term "modality dependent", and the only suggestion of the term is from *Dantzig et al.*, the prior art from which Applicants are attempting to distinguish.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1 to 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The limitations of independent claims 1 and 12 that attributes are "directly related" to recognition and audibly prompting, modality dependent attributes being provided "directly" from the controls on the authoring page, and the client side markup is generated "directly" from modality dependent controls are vague and indefinite. It is appreciated that Applicants are attempting to distinguish by inclusion of the term "directly related" over the modality independent script of *Dantzig et al.* However, Applicants' Specification does not expressly disclose anything about the attributes being "directly related" to the visual rendering or using modality dependent attributes provided "directly" from the controls on an authoring page, nor would it be immediately clear to one having ordinary skill in the art that the attributes are "directly related" in any sense not necessarily disclosed by *Dantzig et al.* The limitation "directly related" is vague, and may be misdescriptive.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1 to 2 and 4 to 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dantzig et al.* in view of *Coffman et al.*

Concerning independent claim 1, *Dantzig et al.* discloses a system and method for generating multi-modal applications from markup scripts, comprising:

"a set of controls defined in an authoring page for a website for defining desired visual renderings and at least one of recognition and audible prompting on a client in a client/server system, each control having a first set of attributes directly related to visual rendering and a second set of attributes directly related to at least one of recognition and audibly prompting, the controls being related to client side markup executable by a client browser" – an XML (eXtensible Markup Language) script is implemented in a single authoring format ("an authoring page") (column 5, lines 50 to 56); main renderer 14 of a multi-modal presentation manager 11 initiates a first processing thread comprising a GUI presentation manager 15 ("a first set of attributes directly related to visual rendering") (column 7, lines 38 to 43: Figure 1); presentation of a graphic user interface (GUI) for an application defines a "visual rendering"; main renderer 14 of a multi-modal presentation manager 11 initiates a second processing thread comprising a speech renderer 16 ("a second set of attributes directly related to at least one of

recognition and audibly prompting"), wherein the speech renderer 16 utilizes a plurality of speech engines 17 for speech recognition and text-to-speech synthesis (column 7, lines 38 to 47: Figure 1); controls are "modality dependent" because each processing thread is directed to either a modality relating to GUI presentation or a modality relating to a speech renderer; multi-modal presentation manager 11 controls an application on a web browser or a desktop (column 8, lines 32 to 35: Figure 1); one thread comprising a GUI presentation manager 15 is "directly related" to defining desired visual renderings on the client device because the thread immediately initiates a visual modality; similarly, a second thread comprising a speech renderer 16 is "directly related" to defining desired operation on the client device because the thread immediately initiates speech recognition or text-to-speech synthesis;

"a module operable on a computer, the module being configured to receive the authoring page, and wherein the module is further configured to generate, using modality dependent attributes provided directly from controls on the authoring page, client side markup executable by the client browser on the client in the server/client system in accordance with the controls and the attributes of the controls to perform both visual rendering and at least one of recognition and audibly prompting" – multi-modal presentation manager 11 controls an application on a web browser or a desktop (column 8, lines 32 to 35: Figure 1); implicitly, a web browser is executed on a client in a client/server architecture for receiving information from the Internet; a "single-authoring" system and method is an interaction-based programming paradigm for creating content as an intent-based markup script (column 5, line 20 to column 6, line 2; column 10, lines

24 to 28); thus, authoring for web-based presentation is on “an authoring page” at a client browser; main renderer 14 of a multi-modal presentation manager 11 initiates a first processing thread comprising a GUI presentation manager 15 (“a first set of attributes directly related to visual rendering”) (column 7, lines 38 to 43: Figure 1); presentation of a graphic user interface (GUI) for an application defines a “visual rendering”; main renderer 14 of a multi-modal presentation manager 11 initiates a second processing thread comprising a speech renderer 16 (“a second set of attributes directly related to at least one of recognition and audibly prompting”), wherein the speech renderer 16 utilizes a plurality of speech engines 17 for speech recognition and text-to-speech synthesis (column 7, lines 38 to 47: Figure 1).

Concerning independent claim 1, the only elements arguably omitted by *Dantzig et al.* are that the attributes are “modality dependent” and controls have attributes that are “directly related” to visual rendering, recognition, and audibly prompting. *Dantzig et al.* discloses that one thread comprising a GUI presentation manager and a second thread comprising a speech renderer are generated from components of modality-independent IML input files rather than directly generating the visual rendering, recognition, and audible prompting. Still, *Coffman et al.* teaches a system and method for providing dialog management in a multi-modal environment, where an input/output (I/O) application program interface (API) 18 provides device abstractions and modality-dependent presentation based on an I/O modality or modalities being utilized. (Column 5, Line 59 to Column 6, Line 3: Figure 2) Multi-modal interaction dialog comprises modalities including speech (e.g., authored in VoiceXML) and visual (GUI) (e.g.,

hypertext markup language). (Column 4, Lines 17 to 23) Thus, attributes from VoiceXML and HTML are "directly related" to recognition and visual renderings. An objective is to provide seamless, multi-modal access across a plurality of conversational applications and frameworks. (Column 1, Lines 49 to 60) It would have been obvious to one having ordinary skill in the art to provide modality-dependent attributes and controls directly related to visual rendering and recognition as taught by *Coffman et al.* in a system and method for generating and presenting multi-modal applications of *Dantzig et al.* for a purpose of providing seamless, multi-modal access across a plurality of conversational applications.

Concerning claims 2 and 4, *Dantzig et al.* discloses that controls relate to grammars for speech recognition (column 9, lines 31 to 39; column 16, lines 6 to 30).

Concerning claims 5 and 6, *Dantzig et al.* discloses that controls relate to XML (column 5, lines 50 to 56), VoiceXML (a form of XML) (Abstract), and WML (column 6, lines 56 to 62).

Concerning claims 7 and 8, *Dantzig et al.* discloses a speech renderer 16 generates audible output by text-to-speech synthesis (column 7, lines 42 to 45).

Claims 3 and 9 to 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dantzig et al.* in view of *Coffman et al.* as applied to claims 1 and 2 above, and further in view of *Ladd et al.* ('336).

Concerning claim 3, *Dantzig et al.* omits attributes for grammars and retrieving grammars from database locations. However, *Ladd et al.* ('336) teaches attributes for

grammars (column 13, lines 6 to 10), and retrieving grammars from database locations (column 12, lines 7 to 14; column 14, lines 18 to 28) for speech recognition. *Ladd et al.* ('336) discloses a voice browser for interactive services, where a GRAMMAR input includes a SCR attribute that can be a grammar address (*i.e.*, a URL) for a markup language document: SCR = "gram//.SomeGrammar/month/year" ("location of a grammar for use in recognition"). (Column 20, Line 47 to Column 21, Line 1) An objective is permit users to access information from any location in the world via any suitable network access device. (Column 43, Lines 54 to 63) It would have been obvious to one having ordinary skill in the art to include markup attributes relating to a location of a grammar as taught by *Ladd et al.* ('336) in a system and method for generating and presenting multi-modal applications from markup scripts of *Dantzig et al.* for a purpose of permitting users to access information from any location in the world via a suitable network access device.

Concerning claims 9 to 11, *Ladd et al.* ('336) discloses determining an address for playing a prompt to a user (column 13, line 66 to column 14, line 17: Figure 5a: Steps 400, 402, 406); both recorded sound samples (column 15, line 63) and text to speech (TTS) (column 16, lines 11 to 20) are provided.

Claims 12 to 46 and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al.* ('336).

Concerning independent claims 12, 23, and 52, *Dantzig et al.* discloses a system and method for generating multi-modal applications from markup scripts, comprising:

"a first set of visual controls having attributes related to a first modality of interaction with a user of the client that being visual renderings on the client device, the first set of controls being related to client side markup executable by a client browser" – main renderer 14 of a multi-modal presentation manager 11 initiates a first processing thread comprising a GUI presentation manager 15; an XML (eXtensible Markup Language) script is implemented in a single authoring format ("on an authoring page for a website") (column 5, lines 50 to 56); presentation of a graphic user interface (GUI) for an application defines "visual renderings"; multi-modal presentation manager 11 controls an application on a web browser or a desktop (column 8, lines 32 to 35: Figure 1); implicitly, a web browser is executed on a client in a client/server architecture for receiving information from the Internet;

"a second set of controls having attributes related to a second modality of interaction with a user of the client that being at least one of recognition and audible prompting, . . . the second set of controls being selectively associated with the first set of controls, and the second set of controls being related to client side markup executable a client browser" – main renderer 14 of a multi-modal presentation manager 11 initiates a second processing thread comprising a speech renderer 16, wherein the speech renderer 16 utilizes a plurality of speech engines 17 for speech recognition and text-to-speech synthesis (column 7, lines 38 to 47: Figure 1); an XML (eXtensible Markup Language) script is implemented in a single authoring format ("defined on an authoring page") (column 5, lines 50 to 56); multi-modal presentation manager 11 controls an application on a web browser or a desktop (column 8, lines 32 to 35: Figure

1); implicitly, a web browser is executed on a client in a client/server architecture for receiving information from the Internet; in deferred rendering and presentation, a speech renderer 16 ("a second set of controls") is "selectively associated with" GUI presentation manager 15 ("a first set of controls") because multi-modal presentation manager 11 automatically integrates and synchronizes voice synthesis and speech recognition functions with the presentation layer of applications (column 6, line 63 to column 7, line 8: Figure 1);

"a module operable on a computer, the module being configured to receive the authoring page, which includes a plurality of the second set of controls, wherein the module is further configured to process the plurality of the second set of controls from the authoring page to generate client side markup directly from the modality dependent controls that is executable by the client browser on the client in the server/client system in accordance with second set of controls and the attributes of the second set of controls for at least one of recognition and audibly prompting, and wherein the module is configured to use at least one of the first set of controls from the authoring page in order to generate markup directly therefrom when processing each of the second set of controls" – main renderer 14 of a multi-modal presentation manager 11 initiates a second processing thread comprising a speech renderer 16, wherein the speech renderer 16 utilizes a plurality of speech engines 17 for speech recognition and text-to-speech synthesis (column 7, lines 38 to 47: Figure 1); an XML (eXtensible Markup Language) script is implemented in a single authoring format ("the authoring page")

(column 5, lines 50 to 56); authoring produces content for both GUI presentation manager 15 and speech renderer 16 (column 7, lines 38 to 48).

Concerning independent claims 12, 23, and 52, *Dantzig et al.* discloses grammars in VoiceXML in order to optimize speech recognition functions (column 10, lines 38 to 56), but omits the limitations of "wherein attributes related to recognition include at least one of location of grammar for use in recognition and confidence level thresholds for recognition and wherein attributes related to audible prompting include at least one of inline text for text-to-speech conversion, location of data for audible rendering and playing of a prerecorded audio file". However, *Ladd et al.* ('336) teaches a voice browser for interactive services, where a GRAMMAR input includes a SCR attribute that can be a grammar address (*i.e.*, a URL) for a markup language document: SCR = "gram//.SomeGrammar/month/year" ("location of a grammar for use in recognition"). (Column 20, Line 47 to Column 21, Line 1) Moreover, *Ladd et al.* ('336) provides a voice browser, where a PROMPT element of the markup language is used to define content by <PROMPT> text </PROMPT> that is read by a text-to-speech unit, so that markup of <PROMPT> Please select a soft drink. </PROMPT> includes at least "inline text for text-to-speech conversion". (Column 16, Line 63 to Column 17, Line 21; Column 18, Lines 33 to 39) An objective is permit users to access information from any location in the world via any suitable network access device. (Column 43, Lines 54 to 63) It would have been obvious to one having ordinary skill in the art to include markup attributes relating to a location of a grammar and inline text for text-to-speech conversion as taught by *Ladd et al.* ('336) in a system and method for generating and

presenting multi-modal applications from markup scripts of *Dantzig et al.* for a purpose of permitting users to access information from any location in the world via a suitable network access device.

Concerning independent claim 23, *Dantzig et al.* further discloses "wherein values of the second set of controls are synchronized with the first set of visual controls" – in one aspect, immediate synchronized rendering of the modality-independent document in each of the supported modalities is provided (Abstract); preferably, the multi-modal interface automatically synchronizes I/O events over the plurality of modalities presented (column 2, lines 50 to 53); multi-modal presentation manager 11 provides a runtime environment which integrates and synchronizes a plurality of 'presentation interfaces', enabling I/O events initiated at one 'interface' to be reflected across all interfaces; multi-modal presentation manager 11 provides a mechanism to automatically integrate and synchronize voice synthesis and speech recognition functions with the presentation layer of applications (column 6, line 65 to column 7, line 8: Figure 1).

Concerning claims 14 and 25, *Ladd et al.* ('336) discloses attributes for grammars (column 13, lines 6 to 10), and retrieving grammars from database locations (column 12, lines 7 to 14; column 14, lines 18 to 28) for speech recognition.

Concerning claims 20 to 22 and 31 to 33, *Ladd et al.* ('336) discloses determining an address for playing a prompt to a user (column 13, line 66 to column 14, line 17):

Figure 5a: Steps 400, 402, 406; both recorded sound samples (column 15, line 63) and text to speech (TTS) (column 16, lines 11 to 20) are provided.

Concerning claims 13, 15, 24, and 26, *Dantzig et al.* discloses controls relate to grammars for speech recognition (column 9, lines 31 to 39; column 16, lines 6 to 30).

Concerning claims 16 to 17, and 27 to 28, *Dantzig et al.* discloses controls relating to XML (column 5, lines 50 to 56), VoiceXML (a form of XML) (Abstract), and WML (column 6, lines 56 to 62).

Concerning claims 18 to 19, and 29 to 30, *Dantzig et al.* discloses a speech renderer 16 generates audible output by text-to-speech synthesis (column 7, lines 42 to 45).

Concerning claims 34 to 46, *Dantzig et al.* discloses a system and method for generating and presenting multi-modal applications from markup scripts for synchronizing a GUI presentation layer with voice synthesis and speech recognition, but omits details relating to "attributes providing a reference to a location", "a prerecorded audio data file", "an identifier of the associated control", "a question control", "an answer control", "binding the recognition value", and "a confirmation control". However, *Ladd et al.* ('336) teaches a voice browser for interactive services. An objective is permit users to access information from any location in the world via any suitable network access device. (Column 43, Lines 54 to 63) It would have been obvious to one having ordinary skill in the art to include details disclosed by *Ladd et al.* ('336) in a system and method for generating and presenting multi-modal applications from markup scripts of *Dantzig*.

et al. for a purpose of permitting users to access information from any location in the world via a suitable network access device.

Concerning claim 34, *Ladd et al.* ('336) discloses a markup language for text to speech; implicitly, when the text is displayed and the speech is produced for an audible prompt, there is an association of attributes between visual controls and audible controls.

Concerning claims 35 to 37, *Ladd et al.* ('336) discloses an option list in a markup language for controlling which choices are available at a network access apparatus (column 28, lines 9 to 60).

Concerning claim 38, *Ladd et al.* ('336) discloses a FORM input to collect an order in response to a prompt, and post the input to an address (column 20, lines 20 to 46); thus, a markup language controls a prompt, then activates an input, and then performs a post operation.

Concerning claims 39 to 43, *Ladd et al.* ('336) discloses a markup language for generating an audible prompt of a question and a grammar for an answer; an answer is followed by, and is activated, a question prompt, where an answer is bound for recognition by <INPUT TYPE> (column 18, lines 40 to 55); a post operation is "an event related to operation of binding" (column 20, lines 28 to 46).

Concerning claims 44 to 46, *Ladd et al.* ('336) discloses a markup language for re-prompting ("repeating an audible prompt") (column 14, line 57 to column 15, line 16: Figure 5a: Steps 416, 425), and an attribute for confirming a recognition result (column 15, lines 45 to 54: Figure 5a: Step 452).

Claims 47 to 51 are rejected under 35 U.S.C. 103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al.* ('336) as applied to claims 23, 39, 40, 45, and 46 above, and further in view of *WCW Working Draft ("Grammar Representation Requirements for Voice Markup Languages")*.

Ladd et al. ('336) discloses a confirmation control to accept an answer as a recognized result that is correct (column 15, lines 44 to 59: Figure 5b: Step 456). Lack of confirmation implicitly denies a recognized result, whereupon the process continues to replay a prompt for a current step so as to correct a recognition result. (Figures 5a and 5b: Step 446) However, *Ladd et al.* ('336) omits an attribute related to a confidence level for confirming, accepting or denying, and correcting a recognition result. *WCW Working Draft* teaches grammars for voice markup languages with attributes, where confidence scoring tightens or relaxes the normal rejection constraints to provide content based control of performance. (Sections 4.3 and 5.1) It would have been obvious to one having ordinary skill in the art to provide confidence scoring as taught by *WCW Working Draft* in the voice browser for interactive services of *Ladd et al.* ('336) for a purpose of tightening or relaxing rejection constraints to provide content based control of performance.

Response to Arguments

Applicants' arguments filed 10 September 2009 have been fully considered but they are not persuasive.

Firstly, Applicants argue the rejections under 35 U.S.C. §112, 1st ¶, as presenting new matter for the terms “modality dependent attributes” and “modality dependent controls”, and under 35 U.S.C. §112, 2nd ¶, as being indefinite for the terms “directly related” and “directly”. Applicants state that an inquiry into whether the written description requirement under 35 U.S.C. §112, 1st ¶, is met is determined on a case-by-case basis, is a question of fact, and that the subject matter of the claim need not be literally described *in haec verba*. Moreover, Applicants contend that the term “directly related” complies with 35 U.S.C. §112, 2nd ¶, because the controls that are used by an application author to cite and specify an application would generate client side markup executable on a client device, and the attributes of the controls allow the author to specify the text that will be prompted to the user. These arguments are not persuasive.

It is agreed that whether the claims comply with the written description requirement under 35 U.S.C. §112, 1st ¶, or whether they present new matter, is a question of fact, is determined on a case-by-case basis, and need not be disclosed *in haec verba*, but that the facts and the case here are such as to indicate that compliance is not present in the current application. Where the facts of the case indicate that Applicants are trying to introduce the terms solely to distinguish over the prior art, and that the terms are not ostensibly supported by the Specification, then the case and the facts would suggest that new matter is present in the case and facts. Applicants have not pointed to anything in their Specification that draws any distinction between, or in any manner reasonably suggests, modality independent and modality dependent controls and attributes. Applicants’ immediately following arguments then say that

Dantzig et al. fails to disclose these modality dependent controls and attributes. Thus, Applicants' position here is manifestly unreasonable.

Similarly, whether the terms "directly related" and "directly" are definite could be considered a question of fact that is determined in an individual case. Ordinarily, the terms "directly related" and "directly" could simply be broadly construed, and would not give rise to issues of indefiniteness. Here, however, Applicants launch immediately into arguments against the prior art that "directly related" attributes and "directly" generated markup are not disclosed by *Dantzig et al.* Still, Applicants state that the term "directly" is only used to indicate that the controls are used by an application author to cite and specify an application and allow an author to specify text that will be prompted to a user. These comments do little to clarify how the terms "directly related" and "directly" are to be understood so as to be disclosed by Applicants' Specification but not taught by *Dantzig et al.* The inconsistency in Applicants' usage of these terms is what gives rise to the indefiniteness.

Secondly, Applicants argue the rejection of independent claim 1 as being obvious under 35 U.S.C. §103(a) over *Dantzig et al.* in view of *Coffman et al.* Applicants say that *Dantzig et al.* does not disclose the limitation of the attributes being "directly related" and using "modality dependent attributes". Applicants contend that the rejection is premised on *Dantzig et al.* generating modality dependent markup "at some point" or "eventually" generating modality dependent markup. Then, Applicants argue that *Coffman et al.* fails to disclose the modality dependent attributes directly from the controls. These arguments are not persuasive.

Even if *Dantzig et al.* does not disclose modality dependent attributes that are directly generated from markup language, these features are clearly taught by *Coffman et al.* Both *Dantzig et al.* and *Coffman et al.* are commonly assigned to International Business Machines Corporation. *Coffman et al.* expressly employs the term "modality-dependent" to describe how the I/O modalities are presented. This contrasts with the modality-independent authoring format disclosed by *Dantzig et al.* It should be clear then that the inventors at International Business Machines Corporation considered both modality-dependent and modality-independent presentation of input and output from multi-modal dialogs including modalities such as speech (e.g., authored in VoiceXML), visual (GUI) (e.g., hypertext markup language), and a combination of modalities (e.g., speech and GUI). (See Column 4, Lines 9 to 23 and Column 5, Line 66 to Column 6, Line 3 of *Coffman et al.*)

Applicants' arguments significantly distort the disclosure of *Coffman et al.* Applicants admit that *Coffman et al.* discloses modality dependent presentation, but say that there is no disclosure that the conversion application 15 is modality dependent, and say that the CVR performs the necessary conversion based upon how the CVR is activated. However, there is no "conversion" because what Applicants call "conversion application 15" is actually disclosed as a "conversational application 15" in *Coffman et al.*! Nor could any disclosure of a "CVR", as Applicants call it, be found anywhere in *Coffman et al.* What is disclosed by *Coffman et al.* is a "CVM", which is an acronym for a "conversational virtual machine". The fact that *Coffman et al.* discloses that speech input/output is authored in VoiceXML and visual (GUI) input/output is authored in HTML

clearly shows that there is no "conversion". *Coffman et al.* discloses "conversation", not "conversion". Moreover, little sense at all can be made of an apparently random citation of Column 5, Lines 51 to 54 of *Coffman et al.* by Applicants. The fact that a DMAF (dialog manager and arbitrator façade) 16 provides an interface between a conversational application 15 and conversational application framework (CAF) 11 does not show that *Coffman et al.* does nothing more than *Dantzig et al.*, which is what Applicants conclude.

Therefore, the rejections of claims 1 to 22 under 35 U.S.C. §112, 1st ¶, as failing to comply with the written description requirement; of claims 1 to 22 under 35 U.S.C. §112, 2nd ¶, as being indefinite for failing to particularly point out and distinctly claim the subject matter; of claims 1 to 2 and 4 to 8 under 35 U.S.C. §103(a) as being unpatentable over *Dantzig et al.* in view of *Coffman et al.*; of claims 3 and 9 to 11 under 35 U.S.C. §103(a) as being unpatentable over *Dantzig et al.* in view of *Coffman et al.*, and further in view of *Ladd et al.* ('336); of claims 12 to 46 and 52 under 35 U.S.C. §103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al.* ('336); and of claims 47 to 51 under 35 U.S.C. §103(a) as being unpatentable over *Dantzig et al.* in view of *Ladd et al.* ('336), and further in view of *WCW Working Draft*, are proper.

Conclusion

THIS ACTION IS MADE FINAL. Applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARTIN LERNER whose telephone number is (571)272-7608. The examiner can normally be reached on 8:30 AM to 6:00 PM Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David R. Hudspeth can be reached on (571) 272-7843. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Martin Lerner/
Primary Examiner
Art Unit 2626
November 6, 2009